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Experiences of Patients Undergoing Total Knee Arthroplasty: A Qualitative Study

Total Diz Protezi Uygulanan Hastaların Deneyimleri: Kalitatif Bir Çalışma

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ABSTRACT Objective: The number of total knee arthroplasty (TKA) surgeries performed has steadily increased in recent years. Patients undergoing total knee arthroplasty experiences various circumstances that effect their quality of life before and after surgery. The aim of this study is to narrate what patients who had TKA went through. **Material and Methods:** Descriptive qualitative design was used to elicit information for the study. Phenomenological research has been carried out in with Turkish 17 patients who had total knee arthroplasty. Semi-structured interviews has been used and purposeful sampling method. Content analysis followed using verbtaim transcripts. **Results:** Three themes were determined: (a) the decision making, (b) the early post-operative period (enduring), (c) the adaptation theme. According to the study results, patients experience many problems in decision making phase, intra-operative process, acute care phase, discharge phase and afterwards. Adaptability or inadaptability to the prosthesis is related to many complicated features. **Conclusions:** The patients may not be able to cope with the difficulties and need multi-dimensional care. In order for the patients to adapt to the prosthesis, besides meeting these necessities, it is necessary to evaluate the effect of cultural factors and many features which are unique to human nature.

Keywords: Total knee arthroplasty; experiences; difficulties; adaptation; qualitative study

ÖZET Amaç: Son yıllarda total diz protezi (TDP) cerrahisi artarak uygulanan girişimlerdendir. Total diz protezi uygulanan hastalar ameliyat öncesi ve sonrası yaşam kalitelerini etkileyen birçok durum deneyimlerler. Bu çalışmanın amacı TDP ameliyatı olan hastaların deneyimlerini incelemektir. **Gereç ve Yöntemler:** Tanımlayıcı kalitatif araştırma tasarımı kullanılmıştır. Fenomonolojik tipteki çalışma, TDP ameliyatı olmuş 17 hasta ile yürütülmüştür. Yarı yapılandırılmış görüşme ve amaçlı örneklem yöntemi kullanılmıştır. Veriler içerik analizi kullanılarak analiz edilmiştir. **Bulgular:** Üç tema belirlenmiştir; (a) karar verme, (b) erken postoperatif dönem (dayanma) ve (c) adaptasyon. Çalışma sonuçlarına göre, hastalar karar verme aşamasında, intraoperatif süreçte, akut bakım evresinde, taburculuk sırasında ve sonrasında birçok problem yaşamaktadır. Protezin uyumu pek çok karmaşık özellik ile ilgilidir. **Sonuç:** Hastalar karşılaştıkları güçlüklerle baş etmekte zorluk yaşamakta ve çok boyutlu bir bakıma gereksinim duymaktadırlar. Hastaların proteze uyum sağlayabilmeleri için, gereksinimlerini karşılamanın yanı sıra, kültürel faktörlerin ve insan doğasına özgü birçok özelliğin etkisini değerlendirmek gereklidir.

Anahtar Kelimeler: Total diz artroplastisi; deneyimler; güçlükler; uyum; kalitatif çalışma

Currently, together with the increase of lifespan, increase in obesity and degeneration in knee joint have increased the number of total knee arthroplasty (TKA) operations. Primary indication of TKA is osteoarthritis which reduce pain, improves joint function, ability to activities of daily living (ADL) independently, increasing satisfaction.[1-5] Optimal outcomes for TKA are connected with patients' conscious post-operative behaviours, adaptation to rehabilitation, support and good management of co-morbid con-

ditions.[6,7] Since adaptation to the prosthesis and being affected by the operation may change from one culture to another, intercultural differences should be considered in determining health needs and constituting care protocols.[8] Although there are studies about the TKA experiences of the patients in different countries, but there isn't in a literature review showed none from Turkey. Attitudes and beliefs of patients about TKA and TKA care are largely based on personal experiences, expectations, and fears that are largely influenced by their close social environment.[9] Understanding the context and the experiences of the patient in undergoing and recovering from TKA is best done using a qualitative research approach. Qualitative approaches provide greater breadth and depth in understanding the experience associated with complex issues surrounding TKA. Such as why patients chose or decline to have joint replacement surgery, how they experience and manage pain, challenges associated with discharge to home and carrying out rehabilitation exercises to name just a few.

There are approximately 27 million patients with osteoarthritis (OA), the TKA is performed on more than 3.2 million from 1991 to 2010 in US.[1,10] Kurtz et al.(2007) stated that the primary TKA is projected to grow by 673% to 3.48 million procedures until 2030.[11] There isn't specific data based on TKA rate of the Turkish population in both of the Turkish Statistical Institute (TurkStat) and Republic of Turkey Ministry of Health. As a TurkStat data, degenerative joint diseases ratio is 8.0% in Turkey (http://www.turkstat.gov.tr/Start.do).[12]

Literature examining concerns by patients who have had TKA shows problems with pain, functional restrictions, difficulty with ADL, constipation, appetite loss, and social isolation in their homes after hospitalization together with early discharge.[4,5,13,14] Moreover, ensures a safe environment for the recovery process at home, exercise, wound care, mastering crutch or stick walking, using stick and medication may become problematic in the lives of the patients.[13-15] Doing so successfully requires an understanding of the problems faced by patients and families. The aim of this study is to narrate what patients who had TKA went through.

MATERIAL AND METHODS

Design: A qualitative descriptive design informed by phenomenology was conducted in the Orthopaedic and Traumatology Outpatient Clinic of Dokuz Eylül University hospital in Turkey.[16] Inclusion criteria for this purposeful sample; first time TKA, surgical intervention greater than two weeks prior to interview; age 18 or older cognitively oriented; ability to speak and understand Turkish. Exclusion criteria included confirmed neurological or psychiatric medical diagnosis. Seventeen patients who met the criteria participated in the study. Male patients hadn't surgery during research period.

Participants: The age of those in the sample ranged from 46 to 84 years with a mean of 60.8 (±9.9), 88.2% were married with most, 64.7% being housewives. All patients were women. The majority (88.3%) lived with either their spouse or children and 64.7% were from urban areas. The length of hospital stay ranged from 3-20 days with a mean of 6.3 (±4.2) days.

Data Collection: Data was collected via semi-structured in-depth interviews completed between June-September 2011. Interviews were conducted with patients who underwent surgery for two weeks or more (***15 days, 8 months, 2,5 years ect.***). Informed consent of the patients were obtained. After the patients were informed about the aim and method of the study, interviews were held in silent room where only the researcher and patient were present. A single interview, lasting 25-60 minutes was completed with each participant. Interviews were taped. A semi-structured Interview guide was prepared in compliance with qualitative research methods.[16] The patients were asked a broad overview research question *"How was your life affected after TKA surgery?"* and sub-questions were included in the guide to be used if the participant did not address particular areas. The study question was decided on the basis of relevant literature and pilot interviews conducted prior to the study. Before the study, five patients were given a pilot interview. Interviews continued until it was apparent

that there was repetition of key concepts and no new information was heard.

Data Analysis: Data was analysed by content analysis method.[17,18] The voice recordings were transcribed by the researcher on the day of the interview without making any alterations. Patient names were not used in the transcription. Data analysis has been made by a second researcher for research validation. All of themes and codes discussed by researchers, and the members of reserach team as a whole agreed upon describtions themes. The analysis phase includes the following steps; 1)Transcription of interview data, 2) Arrangement of interview data, 3) Determination of meaningful data unit, 4) Coding of data, 5) Determination of draft themes, 6) Editing codes according to draft themes, 7) Editing data according to draft themes and codes, 8) Control and finalization of draft themes,9) Determining relations between themes, 10) Organizing themes under research question, 11) Describing data according to codes and themes, citation, exemplification, 12) Writing the research results.[17,18] The findings have been explained and reported by giving quotations.[17] Patient data has been cited without making any interpretations for the reader to compare the data one to-one. In presenting the data, patients' statements, age, surgery location (left, right, or bilateral) and the time after the surgery have been stated.

Rigor: The data analysis and results should be identified in sufficient detail for understanding clearly. **A *diversity*** has been provided by selecting the participants of different age groups and post-operative periods. ***For expert review***; experts in the field of qualitative research have been consulted for semi-structured interview form. Data analysis made by two researchers. Research data has been stored in case data collection instruments, codifications during the analysis phase, observation notes and perceptions basing the report might be presented for proof read.[18] The written informed consent obtained from hospital and approved by patients and ethical committee.

RESULTS

Three main themes captured the experience of the participants experience with TKA (Figure 1).

THEME1: MAKING THE DECISION FOR SURGICAL INTERVENTION

Severity of the illness: Growing severity of the illness restricting functional activities was a key to deciding to have surgery. Informants described advancing severity of pain and difficulty in walking. Activities of daily living were excessively restricted, and other treatment options became insufficient in control of pain and optimizing ADLs. *"Prior to having TKA, I couldn't walk, I received physiotherapy and then I couldn't walk at all. I was walking by having breaks like drunken people. When I came to the hospital, I was crawling they told me to have surgery. My joint was rotten."* ***(50, Bilateral, 8 months)***. *"I couldn't go out for three years. I used to look at people from my balcony and wondered how all those people could walk. The doctor told me that I should have had surgery three years before and I had to have surgery"* ***(56, Bilateral, 2,5 years).***

External Encouragement: Opinions of others were a factor in influencing the person's decision to have surgery. Presentation by the surgeon was a factor noted: *"I had arthritis in my knees. The doctor told me that he would make such a good prosthesis. He motivated me so well, told me that it would be good aunty"* ***(54, Bilateral, 15 days).*** For others, it was knowing others who had already had the surgery with good results. This was motivating and guided them as to surgeon selection as well. "*When I went to the hospital, someone offered me Dr ….. who had her/his spouse. The spouse had stood 15 days later and hoed the garden. That's why I am here"* ***(68, Bilateral, 7 years).***

THEME2: POST-OPERATIVE EARLY PERIOD (ENDURING)

Despite potentially being advised that the surgical experience would move forward without any problems, participants identified many problems that occurred during the early postoperative period. This period included hospitalization as well as during the recovery period at home.

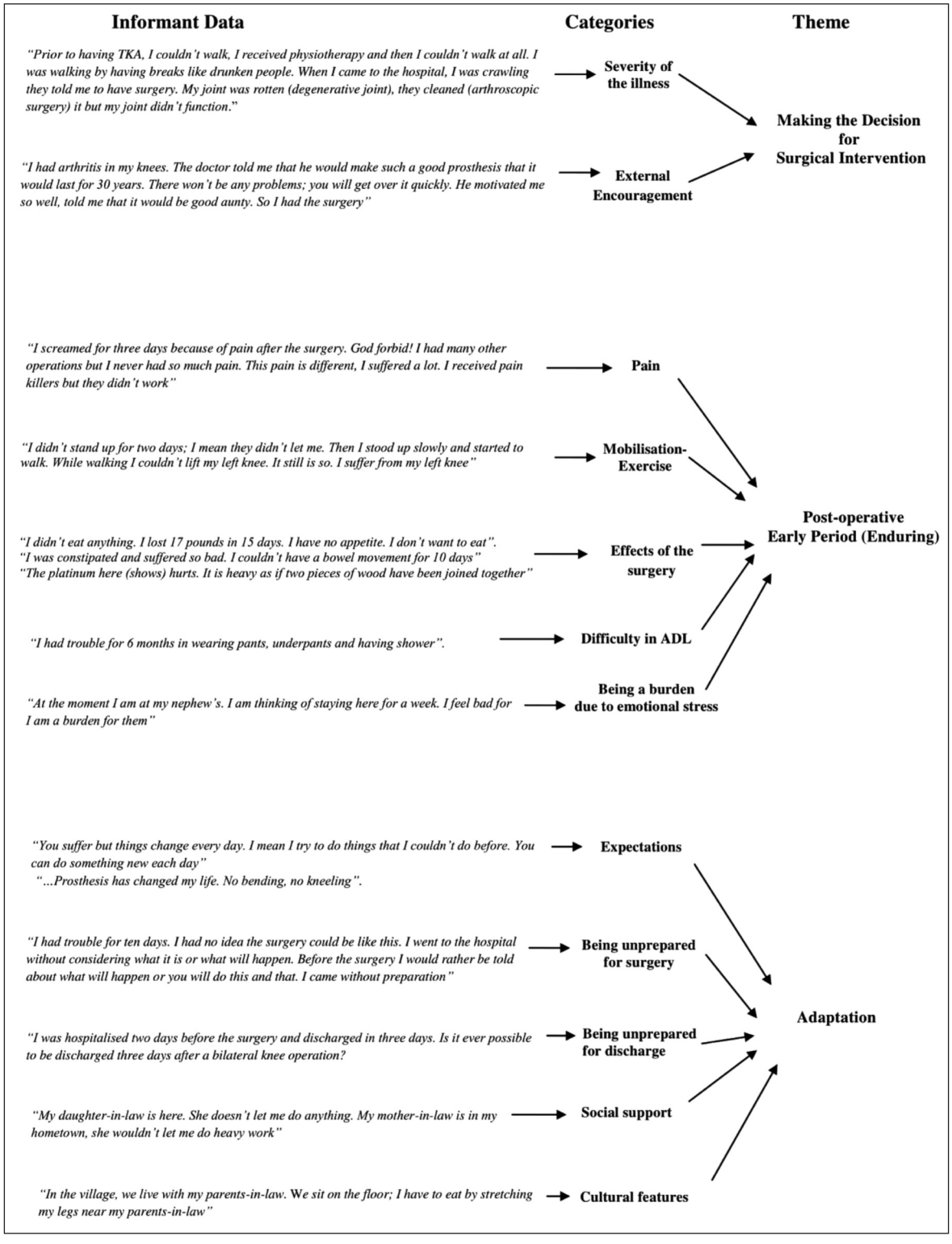

FIGURE 1: Examples of categories, and themes a about Turkish patients'TKA experiences.

Pain: In the early post-operative period patients with TKA experienced severe pain that continued despite interventions. *"I had too much pain. I had never experienced so much pain"* **(54, Bilateral, 15 days).** *"I screamed for three days because of pain after the surgery. God forbid! I had many*

other operations but I never had so much pain. This pain is different, I suffered a lot. I received pain killers but they didn't work" ***(62, Bilateral, 2 years).*** *"During that time I had so much pain but the doctor didn't give me painkillers. I was black in the face (be very angry). Is it ever possible not to give any painkillers when you discharge? He says me on the phone "I can't give you any medication, you will suffer". I went through that period without painkillers"* ***(59, Bilateral, 1,5 years).*** Some of the patients stated that TKA is naturally a painful process and emphasized the need to endure the pain. *"I didn't have any problems but I had a lot of pain. Of course it was natural. I suffered just like everyone and I still am but that's how it should be"* ***(58, Bilateral, 2 months).***

Mobilisation-Exercise: Most of the patients had difficulty with their early mobilisation experiences related postoperative hypotention and weakness: *"After surgery, I could not stand up. I was always having dissiness".* ***(56, Bilateral, 8,5 years).*** *"I didn't stand up for two days; I mean they didn't let me. Then I stood up slowly and started to walk. While walking I couldn't lift my left knee"* ***(72, Bilateral, 15 days).*** Several patients referred to significant pain while applying and using the Continuous Passive Motion (CPM) device: *"After the operation I used a device. While applying, I screamed a lot"* ***(62, Bilateral, 2 years).*** Difficulty with transfer was another problem for most of the patients, especially at the time of discharge moving from a wheelchair to the car: "*I had to get in the car, but I couldn't. I lifted my feet, they put pillows under my feet and then I could get in the car"* ***(50, Bilateral, 8 months).*** The fear of falling down during walking was explained as follows: *"I am walking but I am still afraid. I try to walk by leaving the sticks aside. However, I am afraid of falling"* ***(54, Bilateral, 15 days).***

Effects of the surgery: In the interview, one of the patients stated that he had waited in the operation room and was intimidated by the voices she/he had heard during the operation. *"I was demoralised. I had waited for 3 hours in the operation room. Why? During the surgery I heard some harrr (the sound of saw) and rat-tat-tat sounds. It makes you feel creepy"* ***(70, Bilateral, 6 months).***

Other problems which caused concern and discomfort were insomnia, appetite loss, and constipation both in the hospital and at home one month after the discharge. *"I can't sleep. That's too bad. I just want the pain to stop for a while so that I could sleep. I took painkillers but they didn't really work"* ***(54, Bilateral, 15 days).*** *"I didn't eat anything. I lost 17 pounds in 15 days. I have no appetite. I don't want to eat. My appetite returned 15-20 days".* ***(62, Bilateral, 2 years).*** *"I was constipated and suffered so bad. I couldn't have a bowel movement for 10 days"* ***(70, Bilateral, 6 months).*** Ongoing problems with bruising and swelling was accompanied by pain. *"My wound has recently closed. See? It's still black and blue. I don't know why it is still black and blue. It's like a rock"* ***(70, Bilateral, 6 months).*** *"Look! My foot is still swollen. This area is like a rock, it hurts and it is as hot as fire sometimes. I use ice-pads when it is swollen"* ***(84, Bilateral, 2 years).*** One of the participants described how she/he felt after the implantation. *"The platinum here (shows) hurts. It is heavy as if two pieces of wood have been joined together"* ***(46, Left, 3 months).*** The fear of becoming permanently disabled has been explained through these words: *"My mother had the operation 5 years ago, too and we experienced the pain together with her. Pain… I was psychologically affected. What if I couldn't stand up again? What if my feet didn't recover and I became disabled?"* ***(49, Right, 20 days).***

Difficulty in ADL: Many patients reported persistent problems with ADLs after the surgery. *"I had trouble for 6 months in wearing pants, underpants and having shower."* ***(62, Bilateral, 2 years).*** *"I have difficulty in moving. I can't bend, or stand. I have to work on my feet"* ***(68, Bilateral, 8 years).*** Some difficulties were reported with over-exertion in the rehabilitation period. *"I went to a day-trip one and a half months later and I regretted it because I got on and off all the time and asked for help. I stayed in bed for three days after the trip. Getting on and off made me tired. The bus steps are high"* ***(62, Bilateral, 2 years).*** The fear of prosthesis dislocation during ADL: *"I am really very careful while I am doing housework or having shower. I bath sitting on a high stool or I sit. I try not to kneel*

or lean on the floor while doing housework" ***(70, Bilateral, 6 months).***

Being a burden due to emotional stress: Patients verbalized their inability to care for themselves and for some this was accompanied by concerns about being a burden. Restricted movement, fear and pain necessitated help with personal care. *"First, my daughter looked after me. After the discharge, I went to her place. I was scared and couldn't cook my own food. My daughters-in-law did my laundry, cleaning, and cooked for me"* ***(68, Bilateral, 8 years).*** *"At the moment I am at my nephew's. I am thinking of staying here for a week. I feel bad for I am a burden for them"* ***(54, Bilateral, 15 days).*** Restricted mobility and pain required participants to take time off from work. One of the patients stated that he couldn't start work after the prosthesis and experienced fear of losing her/his job**.** *"They show no tolerance at work. I serve tea and do the cleaning and stuff. When I am like this, the employee doesn't want to work with you"* ***(50, Bilateral, 8 months).***

THEME3: ADAPTATION

Expectations: It has been revealed that some patients have higher expectations of prosthesis, but sometimes these expectations related improving function of their joint could be unrealistic. Length of the healing process effected to participants negatively. *"After the implantation, it took me one and a half months to get rid of the walking sticks. I couldn't do my own stuff for one or month after that, too. I couldn't stand on my own feet completely"* ***(59, Bilateral, 1,5 years).*** Patients who have adapted to the prosthesis have noticed the positive improvements and talked about their satisfaction. *"You suffer but things change every day. I mean I try to do things that I couldn't do before. You can do something new each day"* ***(58, Bilateral, 2 months).*** One of the patients reported to deal with current her/his state despite the difficulties and thank God. *"Thank God I manage myself. I and my spouse manage in a way. I am restricted while bending and can't bend while changing the bed sheets but I can walk*" ***(68, Bilateral, 8 years).*** In the adaptation process patients stated to have accorded with the suggestions of the health personnel. *"I was doing the offered exercise half an hour a day for one and a half years. Lift up and cross your feet, open and close each knee ten times"* ***(49, Bilateral, 1.5 years).*** *"We had a European style toilet on which I am sitting. I did the exercises once a day whenever, I could"* ***(46, Right, 3 months).***

The participants compared their pre-postoperative states: *"Prosthesis has changed my life. I was unable to walk before the prosthesis. I could walk only ten metres and then stop. Then I would start walking"* ***(68, Bilateral, 8 years).*** Some of the patients compared their post-operative states with other patients. *"To my knowledge there shouldn't be any rigor. They (other patients with TKA) had the surgery before I did and stopped using the sticks in 15 -20 days. I can't see why I can't recover"* ***(50, Bilateral, 8 months).***

Being unprepared for surgery: Some of the patients reported to have the surgery without much preparation and not to have sufficient information about the prosthesis and the process. *"I had trouble for ten days. I had no idea the surgery could be like this. I went to the hospital without considering what it is or what will happen. Before the surgery I would rather be told about what will happen or you will do this and that"* ***(70, Bilateral, 6 months).*** *"I wonder what was implanted here. They didn't give me anything"* ***(70, Bilateral, 6 months).*** A worry about the life of prosthesis; *"I was told that these would change in every ten years. I wonder if it is true. That is my greatest concern. We are getting old day by day. I was younger ten years ago. Let's see, shall we?"* ***(68, Bilateral, 8 years).***

Being unprepared for discharge: One patient has explained how she/he was sent home without preparing the discharge. *"I was hospitalised two days before the surgery and discharged in three days. Is it ever possible to be discharged three days after a bilateral knee operation? They discharged even before I could walk. It would be better if I walked with walking sticks and stayed one more week"* ***(59, Bilateral, 1,5 years).***

Social support: Most of the patients stated to receive social support of first and second degree relatives to meet their care needs. *"My daughter-in-law is here. She doesn't let me do anything. My mother-in-law is in my hometown, she wouldn't let me do heavy work"* ***(46, Left, 3 months).*** *"My neighbour always help me during one month after discharge. They cooked, cleaned my house.."* ***(68, Bilateral, 8 years).***

Cultural features: One of the patients mentioned the effect of cultural factors on patients' health perceptions. *"In the village, we live with my parents-in-law.* We *sit on the floor; I have to eat by stretching my legs near my parents-in-law"* ***(46, left, 3 months).***

DISCUSSION

Theme 1: Making the Decision for Surgical Intervention: Findings from this study are consistent with other studies indicating that surgical intervention is primarily influenced by progressive symptoms and advice of others. The participants reported that their ADL and social lives were restricted as a result of symptoms' becoming more severe serious. This restricted ADL is consistent with progressive knee osteoarthritis.[4,6,19-21] As a results, the patients delay the surgery until symptoms begin to show significant restriction. It may be several reasons. People perceive the joint pain as a natural result of aging. O'Neill et al.(2007) explained patients perceive knee osteoarthritis to be associated with normal aging.[22] On the other hand, the patients seeking non-surgical options primarily. No information this opinion with TKA patients in Turkish literature. Generally the decision for treatment is not relate patients' illness state only in Turkish culture, but also it is related to indivudal beliefs, perceptions, expectations, previous illness experinences, opinions of family members and close relatives *(Tekin A. Health - Illness Fact And Its Socıal Roots (Burdur Study). Süleyman Demirel University, The Institute of Social Sciences, Department of Sociology. Unpublished master's thesis. Isparta. 2007).* Some patients percieve osteoarthritis pain as it "comes and goes", and they don't recognize the pain severe enough to require surgery. Also the patients have a gradual increasing pain or decreasing mobility was seen in relation to the decreasing efficacy non-surgical treatments.[22-24] This facilitate to decide the surgery. In our study, the fact that other treatment options do not work well and the encouragement of the orthopaedist have directed the patients to prosthesis surgery. In the literature it has been stated that the fact that patients have difficulty in managing osteoarthritis symptoms and the advice of health personnel are influential in individuals' deciding to have TKA.[23-26] In the research, the patients have consulted a doctor suggested by their relatives as a result of being influenced by their positive experiences. O'Neill et al. (2007) stated that socio-cultural factors, each other's perceptions and information sources are influential in patients' decision.[22] In Turkish culture it is common for patients to consult various references before consulting to a doctor. They generally develop temporary behaviours to solve health problems. These behaviours included self treatment; advices from close friends, relatives, and neighbours; consulting to another persons who special experienced about disease. Especially, the relatives effect to people extremely *(Tekin A. Health-Illness Fact And Its Socıal Roots (Burdur Study). Süleyman Demirel University, The Institute of Social Sciences, Department of Sociology. Unpublished master's thesis. Isparta. 2007).*[8]

Theme 2: Post-operative Period (Enduring): It has been found out that the patients meet mostly various physiological difficulties such as intraoperative states, pain, restriction of mobilisation, general postoperative effects, ADL in the post- operative first month. One of the patients has reported that waiting period in the operation room has affected her negatively and some patients have reported to feel terrified of the sounds they heard during the operation. Since the patients are awake during TKA, it is thought that noise and sounds in the intra-operative process may scare them. In the study of Gustafsson et al. (2007) patients have reported that they have felt defenceless in the intra-operative period.[26] The intra-operative period is an ordinary process but it might be scary for patients

and it must be remembered that patients are awake so they should be comforted. After surgery, the patients psychologically such as being a burden affected from their difficulties experienced in the healing process. These process is very difficult for patients really. Especially all the patients reported to have experienced serious pain and never have experienced such pain before. Orthopaedic surgery is cause of serious pain.[4-6,27,28] It is very important result show me postoperative pain control is insufficient. Another studies' results in Turkey show the patients need to pain control.[29,30] Some of patients perceive postoperative pain as temporary and natural. Also the health personnel included in the research think that post-operative pain is natural and that patients should endure it. Both of patients' and health professionals' this perception may be barrier for pain control. Pain affects mobilisation, patient satisfaction, and recovery period negatively. For this reason, patients should be told that they do not have to endure the pain.[28,31]

Most of the patients reported problems they experience in mobilization and exercise due to hypotension and weakness in the post-operative period. In the literature it has been stated that patients' physical power and energy decrease, their fatigue increase after the TKA.[32] Also, despite the successful results of TKA, pain and movement restrictions may continue after the surgery.[4,15] The fact that patients experience severe pain and fear of experiencing pain if they move may prevent mobilisation.[31] For this reason, effective pain control is important for mobilisation as well. Some of the patients mentioned the pain they experienced while applying CPM in the post-operative period. While CPM has advantages it has been stated to increase pain while using.[15,33]

Patients reported experiencing disorders such as insomnia, constipation, and appetite loss. Patients' post-operative movement restrictions, medication, hospital environment, changes in food and liquid intake, and appetite loss may cause constipation.[34] Patients who had orthopaedic surgery have been reported to experience constipation, appetite loss, changes in sleep routine and fatigue.[35] These disorders may be overcome by pain control, early mobilisation, liquid intake and regular nourishment. Orthopaedic nurses should emphasize the importance of these issues, also problems reported regarding the wound site are related to the inflammation process and considered as normal in patient education.[34] Since patients need help in order to carry out activities such as ADL, individual care, cooking-cleaning, they consider themselves as burden. Continuing the proper position and movement restriction, which are basic human needs, make the patients dependent.[6,15,36] In the literature it has been reported that orthopaedic patients need help while caring themselves and most of them feel uncomfortable for receiving help.[37,38] Even, elderly patients who had TKA for severe OA took several weeks to recover. In some countries patients are given assistance while transferring home.[13] Providing assistance during and after discharge in our country might solve problems such as transfer in this patient group. Moreover in the post-prothesis late period pain and movement restrictions cause difficulties in doing exercise, in their social lives and performing their roles. Also, it is thought that patients' being old increases the need for care.

Theme 3: Adaptation: It has been found out that expectations from TKA, being unprepared for surgery and discharge, social support and cultural features affect Turkish patients' adaptation to the prothesis. When the expectations of the participants do not correspond, their adaptation is affected negatively and their level of satisfaction may lower. Some of the patients compared their pre-operative states with other patients. Individuals' expectations may vary depending on the severity of the symptoms, the level of independence and disability, age, sex, education level. However, it might be useful for them to know that symptoms such as energy scarcity, loss of balance, fear of falling down may not change right after the surgery.[2,32] In a cohort study, it has been stated that restrictions in walking, stepping ladder and all other activities continue in two-year and five-year evaluations.[37] Of the patients, postoperative improvements have caused patients to feel better than before surgery. Meeting the expectations of patients increases pa-

tient satisfaction.[5] Bourne et al. stated that post-TKA patient satisfaction is 81%. In the interviews, it has been revealed that factors such as feeling physiologically ready for the operation, wanting to have the operation, realistic expectations, orthopaedic's motivation affect adaptation positively surgery whereas having the operation without much preparation and sudden operation decision affect adaptation negatively.[2,6] Some of the patients stated that they have been discharged without recovering completely and this situation has affected them negatively. It is thought that this result has emerged together with the concept of early discharge. Discharge time is determined depending on acquiring sufficient movement ability, the presence of necessary support at home, not having any problem in the wound site and reaching the targeted joint mobility. The main aim of the hospital care is to discharge the patients quickly by performing these actions.[33] It has been revealed that discharge planning, preoperative education increase the adaptation process and decrease the rate of rehospitalisation.[13] Some of the patients have stated that they would like to know more about the implanted prosthesis and the process. In the literature it has been reported that patients need to know more about the surgery, the procedures, post-operative activities, post-operative pain control, side effects of the analgesics, exercises, wound site care, time for control at the outpatient clinic, complications and symptoms and when they could go back to their normal lives.[5,14,15] For this reason, orthopaedic nurses should find out "what patients want to know" and inform patients properly.[14]

The care needs of the patients are mostly met by their spouses and children; that is first degree relatives. In Turkish families, taking care of a patient by family members is done as a voluntary.[8,39] Especially their daughters have responsible to care. This state is perceived as care of women's role in Turkey.[39] We can understand the effect of cultural factors on health perception from the words of one of the female participant stating that she was uncomfortable for stretching her legs near her father-in-law. In Turkish culture stretching one's leg when an older member of the family is around is thought to be a disrespectful behaviour and the patient's behaviour may be found strange.[8,39] Especially a large family life is common in rural areas of Turkish culture. Younger family members' behaviours are very respectful to older members. Turkish people expect to respectful behaviour from daughter in low in family.

Limitations: The most important limitation of this study is that all of the women interviewed patients. Maybe, there are differencies related experiences and perceptions as gender.

CONCLUSION

According to the study results, patients experience many problems in decision making phase, intraoperative process, acute care phase, discharge phase and afterwards. Postoperative functional status generally improves over time. However, patients had severe pain, insomnia, constipation, appetite loss, a concern at their inability to walk and/or fear of falling in the early stages. Preoperative, pre-discharge preparation and expectations of patients were factors affecting prosthesis adaptation. It was seen that it has an effect on prosthesis adaptation related to Turkish culture. Most of the patients may remain incapable of dealing with unpredicted problems and need multi-dimensional care. Adaptability or inadaptability to the prosthesis is related to many complicated features such as meeting these needs, cultural factors and human nature.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Ayşegül Savcı, Özlem Bilik;* ***Design:*** *Ayşegül Savcı, Özlem Bilik;* ***Control/Supervision:*** *Özlem Bilik;* ***Data Collection and/or Processing:*** *Ayşegül Savcı;* ***Analysis and/or Interpretation:*** *Ayşegül Savcı, Özlem Bilik;* ***Literature Review:*** *Ayşegül Savcı;* ***Writing the Article:*** *Ayşegül Savcı, Özlem Bilik;* ***Critical Review:*** *Özlem Bilik;* ***References and Fundings:*** *Ayşegül Savcı,* ***Materials:*** *Ayşegül Savcı.*

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